

REMARKS:

Status Of Claims

Claims 1-50 were previously pending in the application. Claims 1, 5, 7, 23, 34, 38, 40, 44, 45, 47, and 48 have been amended. Claims 2-4, 11-18, 24-26, and 35-37 have been canceled without prejudice or disclaimer. Claims 51-67 have been added. Thus, claims 1, 5-10, 19-23, 27-34, and 38-67 are currently pending in the application with claims 1, 19, 23, 34, 44, 45, 47, 48, and 52 being independent.

Office Action

In the Office Action, the Examiner rejected claims 1-3, 5, 6, 11, 12, 15-18, 23-25, 27-29, 33, 34-36, 38, and 42-44 under 35 U.S.C. 103(a) as being unpatentable over Fujimoto et al., U.S. Patent Application No. 2004/0006423 (Fujimoto '423), in view of Tobin Jr., U.S. Patent No. 4,323,992. The Examiner also rejected claims 4, 7-10, 13, 14, 26, 30-32, 37, 39, and 40 under 35 U.S.C. 103(a) as being unpatentable over Fujimoto '423 and Tobin in view of Michaelson et al., U.S. Patent No. 6,734,808. The Examiner also rejected claims 19, 20, and 22 under 35 U.S.C. 102(b) as being anticipated Bailey et al., U.S. Patent No. 4,873,676. The Examiner also rejected claim 21 under 35 U.S.C. 103(a) as being unpatentable over Bailey in view of Fujimoto '423. The Examiner also rejected claim 41 under 35 U.S.C. 103(a) as being unpatentable over Fujimoto '423 and Tobin in view of Bailey. The Examiner also rejected claims 45 and 46 under 35 U.S.C. 103(a) as being unpatentable over Fujimoto 423 in view of Walsh et al., U.S. Patent No. 3,886,487. The

Examiner also rejected claims 47-50 under 35 U.S.C. 103(a) as being unpatentable over Fujimoto et al., U.S. Patent Application No. 2004/0003958 (Fujimoto '958), in view of Fujimoto '423. Applicant respectfully submits that the currently pending claims distinguish the present invention from both Fujimoto references, Tobin, Bailey, Michaelson, Walsh, and the other prior art references of record, taken alone or in combination with each other.

Specifically, claim 1 now recites "performing a marine route calculation algorithm to route a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the potential waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected waypoints". Similarly, claim 23 now recites "performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the potential waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected waypoints". Claim 34 now recites "wherein the processor operates on a marine route calculation algorithm to analyze a course between the first location and the potential waypoint in view of the preselected conditions of the cartographic data and re-route the course to avoid the preselected conditions by identifying one or more non-user selected waypoints". It should be noted that claims 1, 23, and 34 now include limitations similar to those previously found in claims 4, 26, and 37, respectively.

In contrast, in rejecting claim 4, the Examiner acknowledges that "Fujimoto discloses

re-routing the course ... by identifying user waypoints”, rather than non-user waypoints. To cure this defect, the Examiner mistakenly asserts that “Michaelson, on the other hand discloses re-routing the course by identifying one or more non-user waypoints”. In supporting this assertion, the Examiner points to column 24. However, column 24 clearly states that Michaelson’s invention merely “alerts the crew to a new heading to steer or engine setting to avoid collisions”. Column 24, lines 38-41. Specifically, column 24, lines 57-58, state an “alternate track PT’ is first generated by incrementing the ship’s heading by [a] nominal step size”. Thus, Michaelson discloses only suggesting a heading change to avoid an obstacle. In fact, Michaelson is devoid of any suggestion of “re-routing the course to avoid the preselected conditions **by identifying one or more non-user selected waypoints**”, emphasis added, as claimed in claim 1.

As a result, no combination of either Fujimoto references, Tobin, Bailey, and/or Michaelson discloses, suggests or makes obvious “performing a marine route calculation algorithm to route a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the potential waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected waypoints”, as claimed in claim 1. Furthermore, no combination of either Fujimoto references, Tobin, Bailey, and/or Michaelson discloses, suggests or makes obvious “performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the

potential waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected waypoints”, as claimed in claim 23. Finally, no combination of either Fujimoto references, Tobin, Bailey, and/or Michaelson discloses, suggests or makes obvious “wherein the processor operates on a marine route calculation algorithm to analyze a course between the first location and the potential waypoint in view of the preselected conditions of the cartographic data and re-route the course to avoid the preselected conditions by identifying one or more non-user selected waypoints”, as claimed in claim 34.

Claim 19 recites “analyzing cartographic data only within the user defined graphical filter area for the preselected conditions”. The Examiner mistakenly asserts that this limitation is disclosed by Bailey in column 3, lines 26-36 and 46-48. However, column 3, lines 26-29 state “[a]utomatic display scale changing is provided in response to the detected bottom going off-scale, or in response to the detected bottom rising to within a predetermined depth”. Thus, Bailey actually rather clearly teaches a system for automatically **redefining** a display area based on changing water depth. As a result, Bailey simply fails to disclose, suggest or make obvious “analyzing cartographic data only within the user defined graphical filter area for the preselected conditions” as claimed in claim 19.

Claim 44 now recites “performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint in order to avoid preselected conditions received from a user and re-route the course to avoid the preselected conditions

by identifying one or more non-user selected waypoints”. Claim 45 now recites “performing a marine route calculation algorithm to route a course between a first location and the potential waypoint avoiding water depth less than the minimum water depth by identifying one or more non-user selected waypoints”.

In contrast, as discussed above with regard to claims 1, 23, and 34, neither Fujimoto references, Tobin, Bailey, and/or Michaelson disclose avoiding a hazard by identifying non-user selected waypoints. For example, as discussed above, Michaelson only discloses suggesting a heading change. Walsh doesn’t even go that far. Specifically, as stated in column 9, lines 6-10, Walsh simply discloses transmitting “as signal to the alarm 188 which in turn then warns the operator of the ship 20 to change course or take other evasive action”, when the depth ahead is too shallow. Thus, Walsh fails to even provide a suggested heading change, much less non-user selected waypoints that may be used to avoid the hazard. As a result, no combination of the cited prior art references discloses, suggests or makes obvious “performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint in order to avoid preselected conditions received from a user and re-route the course to avoid the preselected conditions by identifying one or more non-user selected waypoints”, as claimed in claim 44, or “performing a marine route calculation algorithm to route a course between a first location and the potential waypoint avoiding water depth less than the minimum water depth by identifying one or more non-user selected waypoints”, as claimed in claim 45.

Claim 47 now recites “displaying a substantially straight line between a first location

and the potential waypoint, wherein the line depicts both where the water depth is expected to be greater than the minimum water depth and where the water depth is expected to be less than the minimum water depth, and wherein the line highlights where the water depth is expected to be less than the minimum water depth”. Similarly, claim 48 now recites “displaying a substantially straight line between a first location and the potential waypoint, wherein the line distinguishes where the water depth is expected to be greater than a preset minimum water depth from where the water depth is expected to be less than the minimum water depth”.

In contrast, the only straight line the Examiner points to, Fujimoto '958's item 45, is depicted completely independently of water depth. Fujimoto '958's only line that relates to water depth is item 43, which depicts a seabed and therefore simply cannot be substantially straight. Furthermore, displayed item 43 as substantially straight would render it unsatisfactory for its intended purpose, namely depicting the seabed. As a result, neither Fujimoto reference discloses, suggests or makes obvious “displaying a substantially straight line between a first location and the potential waypoint, wherein the line depicts both where the water depth is expected to be greater than the minimum water depth and where the water depth is expected to be less than the minimum water depth, and wherein the line highlights where the water depth is expected to be less than the minimum water depth”, as claimed in claim 47, or “displaying a substantially straight line between a first location and the potential waypoint, wherein the line distinguishes where the water depth is expected to be greater than a preset minimum water depth from where the water depth is

expected to be less than the minimum water depth”, as claimed in claim 48.

Claim 50 recites “wherein the line is depicted in a first manner where the water depth is expected to be greater than the minimum water depth and the line is depicted in a second manner where the water depth is expected to be less than the minimum water depth”. For example, this capability is shown in figures 2A, 4A, and 4C and described on pages 11-14, among other places.

The Examiner mistakenly asserts that Fujimoto ‘958 teaches this limitation. However, Fujimoto ‘958 merely displays a seabed line 125 above or below a depth mark 124, as the case may be, but the seabed line 125 is otherwise displayed in the exact same manner. Simply put, there is no difference in the line itself or the manner in which it is displayed, such as highlighting color, solid vs. broken or dashed, whether that portion of the line is flashing, or whether that portion of the line is bolded. In fact, Fujimoto ‘958 lacks any suggestion to show any portion of the seabed line 123 in a different manner. As a result, neither Fujimoto reference discloses, suggests or makes obvious “wherein the line is depicted in a first manner where the water depth is expected to be greater than the minimum water depth and the line is depicted in a second manner where the water depth is expected to be less than the minimum water depth”, as claimed in claim 50.

Claims 51-67 have been added to further distinguish the present invention over the prior art. The remaining claims all depend directly or indirectly from independent claims 1, 19, 23, 34, 45, or 48, and are therefore also allowable.

Application No. 10/667,026
Amendment dated July 25, 2006
Reply to Office Action of May 3, 2006

Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 501-791. In view of the foregoing, a Notice of Allowance appears to be in order and such is courteously solicited.

Respectfully submitted,

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